

Zeitschrift:	Eclogae Geologicae Helvetiae
Herausgeber:	Schweizerische Geologische Gesellschaft
Band:	79 (1986)
Heft:	2
Artikel:	Mineralostratigraphy, litho- and biostratigraphy combined in correlation of the Oxfordian (Late Jurassic) formations of the Swiss Jura range
Autor:	Gygi, Reinhart A. / Persoz, Francis
Kapitel:	Acknowledgments
DOI:	https://doi.org/10.5169/seals-165840

Nutzungsbedingungen

Die ETH-Bibliothek ist die Anbieterin der digitalisierten Zeitschriften auf E-Periodica. Sie besitzt keine Urheberrechte an den Zeitschriften und ist nicht verantwortlich für deren Inhalte. Die Rechte liegen in der Regel bei den Herausgebern beziehungsweise den externen Rechteinhabern. Das Veröffentlichen von Bildern in Print- und Online-Publikationen sowie auf Social Media-Kanälen oder Webseiten ist nur mit vorheriger Genehmigung der Rechteinhaber erlaubt. [Mehr erfahren](#)

Conditions d'utilisation

L'ETH Library est le fournisseur des revues numérisées. Elle ne détient aucun droit d'auteur sur les revues et n'est pas responsable de leur contenu. En règle générale, les droits sont détenus par les éditeurs ou les détenteurs de droits externes. La reproduction d'images dans des publications imprimées ou en ligne ainsi que sur des canaux de médias sociaux ou des sites web n'est autorisée qu'avec l'accord préalable des détenteurs des droits. [En savoir plus](#)

Terms of use

The ETH Library is the provider of the digitised journals. It does not own any copyrights to the journals and is not responsible for their content. The rights usually lie with the publishers or the external rights holders. Publishing images in print and online publications, as well as on social media channels or websites, is only permitted with the prior consent of the rights holders. [Find out more](#)

Download PDF: 07.08.2025

ETH-Bibliothek Zürich, E-Periodica, <https://www.e-periodica.ch>

We chose to discriminate 13 prominent vertical changes in the kaolinite content and lettered them from A to M. Correlation C is subparallel to the upper boundary of sequence 1. Correlation I is very close to the upper boundary of sequence 2, and correlation L runs almost parallel with and close to the base of sequence 4. Since sequence boundaries may be regarded to be isochronous datum levels, we conclude that changes in the source area influenced clay mineral assemblages of northern Switzerland almost simultaneously as compared with the average sedimentation rate, and that our mineralostratigraphic correlations are near-isochronous. The mineralostratigraphic correlations were tied in with the biochronologic ammonite scale by analysis of the clay minerals of the Oxfordian and of the lower Kimmeridgian in cephalopod facies of canton Aargau. The resolution of the mineralostratigraphic correlations is of the order of one ammonite subchron.

The mineralostratigraphic correlations A to C confirmed that the St-Ursanne Formation is time-equivalent to the Birmenstorf Member as was concluded before on the strength of ammonites. The Natica Member is indeed coeval with the Effingen Member just as Bolliger and Burri inferred. The Hauptmumienbank Member is the same age as the Steinibach Beds, and these beds are, according to the mineralostratigraphic correlation I, time-equivalent to the Geissberg Member. Mineralostratigraphic correlation is the only means by which the position of the upper boundary of sequence 2 could be recognized in the shallow water realm. Subdivision of sequence 2 is possible only in the shallow water realm, whereas subdivision of sequence 3 can be done only in the "basin". Correlation L suggests that the boundary between the Balsthal Formation and the Reuchenette Formation almost coincides with the Oxfordian/Kimmeridgian boundary.

Acknowledgments

Stratigraphic fieldwork was funded by the Swiss National Science Foundation grants no 2.211.69 and no 2.165-0.78. Part of the mineralogic analysis was funded by the grant no 2.142-0.76 to B. Kübler. Samples from the collections of W. Bolliger and P. Burri were left to us by D. Bernoulli. M. G. Bieler and C. Kettiger made their samples from the Neuchâtel Jura available for mineralogical analysis. Mineralogical laboratory work was assumed by Mrs. S. Becker, C. Grétillat, M. G., Magranville, and A. Skorupska, and first drafts were prepared by Mrs. I. Bourquin, all of the Laboratoire de Minéralogie, Pétrographie et Géochimie de l'Université de Neuchâtel.

The larger part of the thin sections and of the polished slabs were carefully prepared by K. Müller of the Museum of Natural History Basel. C. Scherler supplied exotic as well as more readily accessible scientific publications. Some of the photographs were made by W. Suter. We received ammonites on loan or as a gift from P. Bitterli, J. Haller, R. Himmller, B. Hostettler, D. Krüger, B. Martin, C. Meyer, V. Pümpin, and A. & H. Zbinden. S. Gygi patiently prepared and measured most of the ammonites, and she typed the manuscript and the tables. M. R. Talbot (Bergen) critically read the manuscript and made helpful suggestions. The printing cost was assumed by the Freiwillige Akademische Gesellschaft Basel. The writers wish to thank the foundations and the persons mentioned above for their support.

REFERENCES

- ADATTE, T., & RUMLEY, G. (1984): Microfaciès, minéralogie, stratigraphie et évolution des milieux de dépôts de la plate-forme berriasio-valanginienne des régions de Ste-Croix (VD), Cressier et du Landeron (NE). – Bull. Soc. neuchât. Sci. nat. 107, 221–239.
- AGER, D. V. (1975): The Jurassic world ocean. In: FINSTAD, K. G., & SELLY, R. C. (Ed.): Jurassic northern North Sea Symposium 1975 (p. 1/1–43). – Norwegian Petroleum Soc., Oslo.
- ARKELL, W. J. (1956): Jurassic geology of the world. – Oliver & Boyd, Edinburgh.